

REMARKS/ARGUMENTS

Claims 1-60 are pending. Applicants have amended Claims 18-31 and 50. Applicants have cancelled Claim 61, and thus, the rejections of Claim 61 are moot. Applicants respectfully request reconsideration of the pending claims in view of the following remarks.

OBJECTION TO THE SPECIFICATION

Applicants have amended the Cross-Reference to Related Applications section to indicate that U.S. Patent Application Serial No. 10/207,725 issued as U.S. Patent No. 6,718,208. Applicants have also amended the Cross-Reference to Related Applications section to replace the blanks on lines 12 and 16 with the appropriate serial numbers, 10/629,491 and 10/657,353, respectively. Applicants respectfully request withdrawal of the objection to the specification.

OBJECTION TO THE CLAIMS

Claims 18-29 and 31 stand objected to under 37 CFR § 1.75(c), as being of improper dependent form. Applicants have amended Claims 18-29 and 31 to depend from independent Claim 17, rather than from independent Claim 1. Applicants respectfully request withdrawal of the objection to Claims 18-29 and 31.

CLAIM REJECTION- 35 U.S.C. § 112

Claim 30 stands rejected under 35 U.S.C. § 112, second paragraph, as having insufficient antecedent basis for “the blood vessel.” Applicants have amended Claim 30 to depend from independent Claim 17 and have replaced “the blood vessel” with “the first electrode and the second electrode.” Applicants respectfully request withdrawal of the rejection of Claim 30 under 35 U.S.C. § 112, second paragraph.

OBVIOUSNESS-TYPE DOUBLE PATENTING

Independent Claim 50 – Double Patenting

Independent Claim 50 stands rejected under obviousness-type double patenting over independent Claim 17 of U.S. Patent No. 6,718,208 (“the ‘208 Patent”).

Independent Claim 50 also stands rejected under obviousness-type double patenting over independent Claims 21 and 22 of U.S. Patent No. 6,735,471 (“the ‘471 Patent”).

Amended Claim 50 of the current application specifies a system comprising “a nerve stimulator to inhibit beating of the heart in order to achieve controlled asystole; a cardiac stimulator to stimulate beating of the heart in order to reverse the controlled asystole; and a processor that coordinates regulation of the output of the cardiac stimulator and the output of the nerve stimulator.” Independent Claim 17 of the ‘208 Patent specifies a system comprising “a nerve stimulator to inhibit beating of a heart; a cardiac stimulator to stimulate beating of the heart; means for coordinated regulation of output from the nerve stimulator and output from the cardiac stimulator; and drug delivery means for delivering at least one drug during the medical procedure.” Claim 50 of the current application specifies patentable subject matter over Claim 17 of the ‘208 Patent because Claim 50 specifies achieving and reversing controlled asystole, which are not limitations included in Claim 17 of the ‘208 Patent.

Independent Claim 21 of the ‘471 Patent specifies a device comprising “a processor; an endotracheal nerve stimulation electrode operatively connected to the processor; a cardiac stimulation electrode operatively connected to the processor, wherein the processor processes output from the nerve stimulation electrode and adjusts output from the cardiac stimulation electrode based on output from the nerve stimulation electrode; and a drug pump for delivering at least one drug, the drug pump operatively connected to the processor wherein the processor adjusts the output of the drug.” Claim 50 of the current application specifies patentable subject matter over

Claim 21 of the '471 Patent because Claim 50 specifies achieving and reversing controlled asystole, which are not limitations included in Claim 21 of the '471 Patent.

Independent Claim 22 of the '471 Patent specifies a device comprising “a processor; an endotracheal nerve stimulation electrode operatively connected to the processor; a cardiac stimulation electrode operatively connected to the processor, wherein the processor processes output from the nerve stimulation electrode and adjusts output from the cardiac stimulation electrode based on output from the nerve stimulation electrode; and a respiratory controller for controlling respiration, the respiratory controller operatively connected to the processor wherein the processor adjusts the output of the respiratory controller.” Claim 50 of the current application specifies patentable subject matter over Claim 22 of the '471 Patent because Claim 50 specifies achieving and reversing controlled asystole, which are not limitations included in Claim 22 of the '471 Patent.

Dependent Claims 51-60 – Double Patenting

Claims 51-60 stand rejected under obviousness-type double patenting over Claims 18 and 21-28 of the '208 Patent. Claims 51 and 53-56 also stand rejected under obviousness-type double patenting over Claim 21 of the '471 Patent. In addition, Claims 50 and 57 stand rejected under obviousness-type double patenting over Claim 21 of the '471 Patent. Claims 51-60 depend from Claim 50 and are therefore patentably distinct for the reasons set forth above with respect to Claim 50.

In light of the above, Applicants respectfully request withdrawal of the obviousness-type double patenting rejections of Claims 50-60.

CLAIM REJECTION- 35 U.S.C. § 102

Independent Claim 50

Claim 50 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,203,326 issued to Collins. Amended Claim 50 specifies “a nerve stimulator to inhibit beating of the heart in order to achieve controlled asystole” and “a cardiac stimulator to stimulate beating of the heart in order to reverse the controlled asystole.”

Collins discloses “an antiarrhythmia therapy which includes...electrical stimulation of the heart and electrical stimulation of nerves or ganglia in the autonomic nervous system.” The antiarrhythmia pacemaker that delivers this therapy “responds to the detection and confirmation of an abnormal heart condition by controlling and coordinating the heart pulse stimulator and the nerve fiber stimulator to direct performance of a combined heart and nerve stimulation therapy.” *Collins*, Abstract. However, Collins does not disclose achieving or reversing controlled asystole, as specified by amended Claim 50.

Claim 50 also stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,330,507 issued to Schwartz.

Schwartz discloses “a method and apparatus for electrically stimulating the vagal nerves for the prevention of life threatening arrhythmias.” More specifically, Schwartz discloses that it is “an object of the present invention to prevent or interrupt tachyarrhythmias and to restore and maintain adequate cardiac function through stimulation of the vagal nerves as well as the heart tissue.” However, Schwartz does not disclose achieving or reversing controlled asystole, as specified by amended Claim 50.

Accordingly, neither Collins nor Schwartz discloses “a nerve stimulator to inhibit beating of the heart in order to achieve controlled asystole” and “a cardiac

stimulator to stimulate beating of the heart in order to reverse the controlled asystole,” as specified by amended Claim 50. Therefore, independent Claim 50 and dependent Claims 51-60 are allowable.

Dependent Claims 53-56

Claims 53-56 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Collins or Schwartz. Claims 53-56 depend from Claim 50 and are therefore allowable for the reasons discussed with respect to Claim 50. Claims 53-56 also specify additional patentable subject matter not specifically discussed herein.

ALLOWABLE SUBJECT MATTER

Applicants appreciate the allowance of Claims 1-16 and 32-49.

CONCLUSION

In light of the above, Applicants respectfully request reconsideration and allowance of pending Claims 1-60.

Respectfully submitted,



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